cal level; private industry; organized groups; and individuals. The work involves advising and promoting application of the results of research and specialized program knowledge.

**Testing and evaluation.** Testing of equipment, materials, devices, components, systems, and methodologies under controlled conditions and the systematic evaluation of test data to determine the degree of compliance of the test item with predetermined criteria and requirements. This work is characterized by the development and application of test plans to be carried out in-house or under contract or grant utilizing one or more of the following kinds of tests: physical measurement techniques; controlled laboratory, shop, and field (demonstration) trials; and simulated environmental techniques. Activities included in this category are as follows:

1. Development testing to determine the suitability of the test item for use in its environment
2. Production and postproduction testing to determine operational readiness
3. Testing in regulatory programs to determine compliance with laws, regulations, and standards
4. Testing in the social sciences using demonstration or experimental and control groups to determine the effectiveness of new methodologies or practices

**Other-not elsewhere classified.** This category is to be used for the following positions:

1. Those with highly specialized activities that are not covered in any of the other categories
2. Those of such generalized nature that a primary function cannot be identified
3. Trainee positions without functional assignments

**Limitations of the Data.** The criterion used to classify Federal white-collar employees as scientists and engineers is by examining the occupational definitions of Federal occupational groups and series and determining whether those descriptions meet NSF's criteria. General job series rather than individual job descriptions were examined and categorized; so employees within these series or groups are not necessarily working as scientists and engineers or on S&E work. On the other hand, there are some occupations that have not been classified as S&E occupations. For example, patent examiners have not been included in S&E occupations, even though some of the employees within this occupation are trained as scientists and particularly engineers. (These employees were included in the statistical table on Federal personnel who held their highest degree in S&E but who were employed in non-S&E work.)

The information presented in this report is obtained from OPM's CPDF. The CPDF is updated on a quarterly basis by agency submissions. The agencies collect their data from individual notifications of (SF-50-B) and requests for personnel action (SF-52-B). The forms are usually updated by personnel clerks and are subject to misclassification and miscoding. This is particularly true for three of the data elements, primary work activity (functional classification), highest degree field, and highest degree level. Personnel clerks update primary work activity data and unless they refer to position descriptions or contacts with individual employees (or the employee's manager) whose records are being updated, the coding is subject to misclassification. Education data (highest degree field and highest degree level) are collected only on permanent employees at the time of entry into Federal service and are not routinely updated by additional educational experience after the time of hiring.

For further information on data quality, survey methodology, and error analyses on the data provided to NSF, refer to the Federal Civilian Workforce Statistics, Occupations of Federal White-Collar and Blue-Collar Workers, issued biennially by OPM. The OPM website on Federal workforce statistics can be accessed at http://www.opm.gov/Statistics_Information_Instructions/. The NSF website on Federal scientists and engineers can be accessed at http://www.nsf.gov/statistics/pubseri.cfm?TopID=4&SubID=46&SeriID=15.